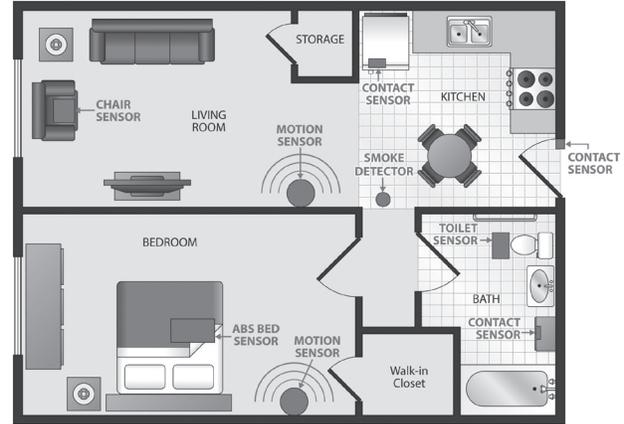


The Age-Friendly City: Real-World Case Studies

Case Study: Sensors for Seniors

Imagine a “magic” carpet that can sense when someone has fallen and summon help. Or a “smart” pill bottle that can sense when it hasn’t been opened and send a reminder to a patient to take her medication. In the future, entire houses can be wired with sensors to alert caretakers if the heat isn’t working, or if a door opens in the middle of the night, or to alert a senior that his oven has been on for more than an hour. Sensors can also be wearable, and they can even be scattered throughout a city sending warnings and safety information to fire, police, or health officials. Do sensors hold the key for elderly independence? Or are they too intrusive—putting seniors under a surveillance that invades personal privacy?



Case Study: Tubeless London

In 2014, NBBJ, an architectural design firm, submitted a radical plan to improve transportation within the city of London and make it more age-friendly. Their idea was to get rid of the subway cars that served London for more than a century and replace them with moving walkways. This is the way NBBJ imagined the new London transit:

The track is divided into three lanes. A “slow” lane travels at 5.5 miles per hour, a “medium” lane at 7.45 mph, and a “fast” lane at 9.3 mph. As the walkways enter tunnels, they pick up even more speed. When people enter the underground, instead of boarding a train they’ll immediately hop onto one of the three tracks. Accommodations for elderly and disabled riders will include benches to sit on, and easy methods to get on and off the moving belts. According to the designers, much of the cost of totally gutting the existing tube system would be recouped in revenue from cafes and food carts located on the side of the tracks.

Case Study: The Virtual Senior Center

At 93 years old, Rose Binder of Queens, NY lives alone and is house-bound. There are no stores in her neighborhood, and taking an accessible taxi service makes her “very nervous.” “Sometimes they come late,” she says, “or they don’t show up and I have to keep calling.” Even speaking on the telephone is difficult for her. For many people in Rose’s circumstances, life would be lonely and isolating. But Rose’s time is filled with intellectual and cultural riches and friends that she gathers with regularly thanks



to the Virtual Senior Center. Each week, the Virtual Senior Center offers some 30 online classes to homebound clients, from tai chi and exercise to contemporary history discussions and gallery talks with museum curators, as well as music appreciation, singing, and even foreign language classes. Participants use a simple touch-screen computer to join in, play games, or use the Internet. “I especially like any classes that give you information like history or art, so I try to do as many as I can,” says Binder. “But unfortunately I have to eat lunch and I skip something. Where else can you get such a wonderful array of classes without going to class?”

Research has found that loneliness contributes to many physical ills, among them heart disease, poor immunity and Alzheimer’s. To help counter loneliness, the Virtual Senior Center is all about participation and relationships. Unlike other distance learning where people often sit anonymously at their computer screens, participants engage here not only with the instructor but with each other, and friendships form.

Case Study: Human Factors Engineering

Most young people are very comfortable with technology. They usually have an easy time learning to use new products and technologies. Older people, on the other hand, sometimes have a hard time with new or unfamiliar tools and technologies, such as a new smartphone, an ATM, a new parking meter, or a self-checkout stand at the supermarket.

Human Factors Engineers help design tools and technologies that are easy to use. The field of Human Factors Engineering helps ensure that new products and technologies are a good match for people’s abilities and the environments where the products and technologies will be used. Human factors engineers consider human strengths and weaknesses, both physical and cognitive, when designing new technology. Human factors engineers consider the skills a person needs to perform tasks with a new product. For example, when human factors engineers help design an inhaler, they ensure that all users, including elderly users, are strong enough to push down on the inhaler button to release a dose of medicine. When human factors engineers help design the dashboard of a car or a plane, they make sure that



the buttons and indicator lights are clearly labeled so that users don’t have to spend extra time interpreting vague symbols or colors. It is also important to make products as intuitive and “user-friendly” as possible to reduce the chance that people make mistakes when using them.

Overall, human factors engineers focus on how technology works in actual practice, with real human beings at the controls. They try to design products that maximize safety, reduce the chance of mistakes, and are satisfying to use.